

Chesapeake Bay Exception CBE-11-033: 2697 Jockeys Neck Trail

Staff report for the October 13, 2010 Chesapeake Bay Board Public Hearing

This staff report is prepared by the James City County Environmental Division to provide information to the Chesapeake Bay Board to assist them in making a recommendation on this assessment. It may be useful to members of the general public interested in this assessment.

Existing Site Data & Information

Applicant: Daniel F. Switzer

Land Owner: Daniel F. Switzer & Diana H. Skelton

Location: 2697 Jockeys Neck Trail

Parcel: Lot 19, Phase 2, Vineyards at Jockeys Neck

Parcel Identification: 4840200019

Lot Size: 0.73 acres

RPA Area on Lot: 0.721 acres or 98.7% of the lot

Watershed: College Creek (HUC Code JL34)

Proposed Activity: Construction of a paver patio addition

Proposed Impacts

Impervious Area: 400 square feet

RPA Encroachment Seaward 50 foot RPA Buffer

Brief Summary and Description of Activities

Mr. Daniel F. Switzer of 2697 Jockeys Neck Trail in the Vineyards at Jockeys Neck has applied for an exception to the Chesapeake Bay Preservation Ordinance (Ordinance) for an encroachment into the RPA buffer for the construction of a paver patio addition approximately 400 square feet in size. The paver patio addition is approximately 20 ft. x 20 ft. in size and is situated off of the existing deck and screened porch on the west portion of the existing home. Because of the lot's setting between two fingers of existing Lake Ajacan, the entire patio is situated within the seaward 50 ft. RPA buffer. The patio will create 400 square feet of impervious area within the seaward RPA Buffer.

A detailed RPA Mitigation Planting Plan (Plan) has been provided along with the exception request for your review. The plan proposes to mitigate for the RPA impacts by planting one (1) native understory trees and three (3) native shrubs. The amount of plantings proposed meets the standard mitigation planting requirements of the County for impervious impacts. Following a meeting on September 15th 2010 between the applicant/owner, the landscape contractor, and County staff, the applicant has offered additional mitigation by installing a LID-IMP (low impact development – integrated management

practice) feature in the proposed mulched bed area directly adjacent (west) of the proposed patio footprint. This area is approximately 20 ft. long x 6 ft. wide. Initially this feature was proposed as a typical raised mulch bed with plantings. However, by examining drainage patterns and discussing the potential opportunities for an LID-IMP feature at this location, the mulched bed area is now proposed to directly treat runoff from new impervious cover for the patio in a source control manner. This area is not intended to be an infiltration or bio-retention type area; however by use of soil tilling (in a previously compacted yard soil area), placement of soil amendments (sand, organics, peat, etc.), grading to depress the area (rather than constructing a mulch berm), mulching and use of selective plantings the area will serve as a LID-IMP type feature.

As a note, the applicant provided specifications for the proposed paver patio addition. The paver blocks are proposed as concrete pavers with sand-filled joints on 1 to 1-1/2 inch thick sand bed placed on gravel stone. Geotextile fabric and compacted subgrade soils beneath the gravel may be necessary depending on encountered soil conditions. The patio will also have a cobbled slate border. Although paver block with sand-filled joints, the system is not considered by staff as a pervious system, but impervious cover. This is because the paver stones are not of a permeable nature and the only potential for runoff to enter subgrade is between the sand-filled joints, which in time will tend to consolidate and seal off any entry of water. Also, subgrade layers are not designed to act as an infiltration, treatment or containment (detention) areas and an underdrain is not proposed for the system to serve as a filtering device.

Staff Recommendations

The issue before the Board is the addition of 400 square feet of impervious area within the seaward RPA buffer for a paver patio addition. The Board is to determine whether or not this is consistent with the spirit and intent of the Ordinance and make a finding based upon the criteria outlined in Section 23-14(c) of the Ordinance. There are five (5) review criteria within this section of the ordinance.

Staff has fully reviewed the application and exception request, including the WQIA, and has determined impacts associated with the proposal to be minimal and impacts associated with the proposal are adequately offset with implementation of the mitigation plan. If the Board favors the resolution to grant approval, staff recommends the incorporation of the following conditions into the approval:

1. The applicant must obtain all other necessary local permits as required for the project.
2. All proposed mitigation plantings shall meet James City County standards of 1" caliper for the canopy and understory trees and proposed shrubs shall be minimum three gallon size.
3. The LID-IMP (low impact development – integrated management practice) feature, as shown and labeled on the mitigation plan as a "bio-retention area", shall be constructed adjacent to the patio. This area shall be approximately 120 square feet in size and consist of a depressed (sunken) area with soil amendments, mulch and native plantings as approved by the Environmental Division.
4. Full implementation of the RPA Mitigation Plan submitted with the WQIA and any additional Board mitigation requirements shall be guaranteed through the provisions of the Ordinance contained in Sections 23-10(3) (d) and 23-17(c) which is providing a form of surety satisfactory to the County Attorney.
5. This exception request approval shall become null and void if construction has not begun by October 13, 2011 or all improvements including the required mitigation plantings, including the infiltration area, are not completed by that expiration date.
6. Written requests for an extension to an exception shall be submitted to the Environmental Division no later than 2 weeks prior to the expiration date.

Background

The lot was recorded in 1991, after the adoption of the Chesapeake Bay Ordinance in 1990. There was no RPA present on the lot at recordation. However, effective January 1, 2004, the revised Ordinance went into effect establishing 100-foot RPA buffers around all water bodies with perennial flow. It has been determined that both the upper (Joachin) and lower (Ajacan) connected lake system in the Vineyards at Jockeys Neck have perennial flow entering into them. Therefore, an RPA buffer now exists around both ponds and RPA is present on this subject lot.

As the proposed feature is accessory in nature, it cannot be administratively reviewed and therefore in accordance with section 23-14 of the Ordinance, an exception request must be considered by the Chesapeake Bay Board following public hearing under the formal exception process.

The exception request before the board, and decision to approve or deny by resolution, is for encroachment into the RPA buffer for the construction of a paver patio addition approximately 400 square feet in size.

Water Quality Impact Assessment (WQIA)

Under Sections 23-11 and 23-14 of the County's Chesapeake Bay Preservation ordinance, a water quality impact assessment (WQIA) must be submitted for any proposed land disturbing activity resulting from development or redevelopment within RPAs.

The applicant has submitted the required information as outlined in the *James City County Water Quality Impact Assessment Guidelines*. The applicant has submitted a County *Sensitive Area Activity Application*, a mitigation plan and additional details and specifications. The WQIA map shows features of the proposal along with a mitigation plan for plantings and the general location of the soil amendment/planting area at the mulched bed area. This area is approximately 120 square feet in size and is identified on the scaled plan as "Proposed Bioretention Basin". This feature was described in detail in the staff report above and will help to intercept and treat runoff from the new impervious area and provide water conservation benefits.

Consideration by the Chesapeake Bay Board

The exception granting body is permitted to require reasonable and appropriate conditions in granting the exception request in accordance with Section 23-14 of the County's Chesapeake Bay Preservation ordinance. The Chesapeake Bay Board is to fully consider Chesapeake Bay Exception CBE-11-033 as outlined and presented above and review the request for exception and the water quality impact assessment. The Board may grant the exception with such conditions and safeguards as deemed necessary to further the purpose and intent of the County's Chapter 23 Chesapeake Bay Preservation Ordinance. Resolutions for granting approval or granting denial of Chesapeake Bay Exception CBE-11-033 are included for the Board's use and decision.

Staff Report prepared by:

Scott J. Thomas
Secretary to the Board

Attachments: Sensitive Area Activity Application
Mitigation Plan
Incidental Details & Specifications